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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,325	12/29/2003	Colin Whitby-Strevens	APPL-P3015	1716

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11440 WEST BERNARDO COURT
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EXAMINER	
SPITTLE, MATTHEW D	

ART UNIT	PAPER NUMBER
2111	

MAIL DATE	DELIVERY MODE
01/15/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/749,325	WHITBY-STREVENS ET AL.	
	Examiner	Art Unit	
	MATTHEW D. SPITTLE	2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 November 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-9,13,15-21,29 and 33-56* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1,3-9,13,15-21,29 and 33-48* is/are allowed.

6)☒ Claim(s) *49-53* is/are rejected.

7)☒ Claim(s) *54-56* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1 – 56 have been examined.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 49, 50, 52 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stone et al. (U.S. Pub. 2002/0152346) in view of Crutchfield et al. (U.S. Pub. 2002/0196884).

Regarding claim 49, Stone et al. teach a method of transmitting data across a high-speed serial bus, the method comprising:

Generating a first multi-bit symbol (interpreted as data transfer), the multi-bit symbol being compliant with a first transmission protocol (Figure 5, item 120);

Placing the generated first symbol on the first interface (paragraphs 27, 38);

Placing the symbol in storage (Figure 5, 136, 138, 140, 126, 128);

Sending the derived multi-bit byte to a second physical interface, the second interface utilizing a different communication protocol than the first interface (paragraph 42; Figure 5, item 122; Examiner notes that the symbol would have to be an 8-bit byte since the IEEE 802.3-compliant PHY only supports 8-bit data transfers);

Stone et al. fails to explicitly teach the steps of loading and unloading data from the FIFOs in accordance with a first TX symbol clock and a second TX clock. Examiner notes that the IEEE 802.3 and IEEE 1394 busses transfer data at different rates, and thus require the data to be transferred into and removed from the FIFOs (Figure 5, 136, 138, 140, 126, 128) at different clock rates. Thus this limitation is inherently present in the system of Stone et al.

Stone et al. fail to teach deriving a multi-bit byte from the stored symbol, scrambling the symbol, and encoding the 10-bit symbol.

Crutchfield et al. teach sending a 10-bit signal on an IEEE 1394 bus, scrambling the symbol, encoding it, and transmitting it on the bus to the destination where it is decoded into an 8-bit word for the purpose of reducing radiated emissions, and providing DC balance and clock recovery (paragraphs 12, 13). These advantages help to make the method of transmitting data across a high-speed serial bus more reliable.

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to include the method of sending a 10-bit signal as taught

by Crutchfield et al. into the method of Stone et al. for the purpose of making the method of transmitting data across a high-speed serial bus more reliable.

Regarding claim 50, Stone et al. teach removing the stored symbol from the storage before performing said act of deriving (Examiner notes that, consistent with the operation of a FIFO, in order for the data to move from Figure 5, item 126, to 132, as indicated by the arrows, the symbol would have to be removed from the FIFO).

Regarding claim 52, Crutchfield et al. teach wherein the multi-bit symbol comprises 10 bits and the multi-bit byte is derived by using 8 bits from the stored symbol(paragraphs 12, 13).

Regarding claim 53, Stone et al. inherently teach sending the received 8-bit byte from the IEEE 802.3 compliant PHY to a device in accordance with a phase amplitude modulation clock, since Stone et al. teach an IEEE 802.3 interface.

* * *

Claim 51 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stone et al. (U.S. Pub. 2002/0152346) in view of Crutchfield et al. and what is well known in this art as evidenced by D'Ignazio et al. (U.S. 5,208,808).

Regarding claim 51, Examiner takes Official Notice that it was old and well known in the art at the time of invention by Applicant to place a null symbol in the FIFO when no symbols were present to indicate that the FIFO was empty. This is evidenced by D'Ignazio et al. in column 4, lines 50 – 54.

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by Applicant to place a null symbol in the FIFO to indicate that the FIFO was empty. This would have been obvious since to do so is routine in this art.

Allowable Subject Matter

Claims 1, 3 - 9, 13, 15 - 21, 29, and 33 - 48 are allowed.

Claims 54 – 56 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant did not submit any arguments on 11/12/2008 traversing the rejection of newly submitted claims as presented above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW D. SPITTLE whose telephone number is (571)272-2467. The examiner can normally be reached on Monday - Friday, 9 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 571-272-3632. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/M. D. S./
Examiner, Art Unit 2111

/MARK RINEHART/
Supervisory Patent Examiner, Art Unit 2111